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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/179,872	10/28/1998	PAN-JIN KIM	1317.1055/MD	6192

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EXAMINER

BROWN, RUEBEN M

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 07/25/2002

16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/179,872

Applicant(s)

KIM ET AL.

Examiner

Brown M. Reuben

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 26 June 2001.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-14, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-14, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. Examiner notes that the claimed feature of, "changing a current channel to a demanded major channel", does not exclude operating within an EPG environment. Therefore the claimed feature is broad enough to read on a subscriber selecting a particular major channel within an EPG service, then choosing another major channel. As examiner points out below, Ozkan discusses a hierarchal menu system. By definition a hierarchical menu system includes listing a sub-menu of channels, i.e. minor channels, after a major channel has been selected.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 3, 5, 7, 10 & 17-18 are rejected under 35 U.S.C. 102(e) as being rejected by Ozkan, (U.S. Pat # 6,111,611).

Considering amended claim 1, the claimed method for displaying channel information on a digital TV for receiving digital multichannel TV broadcasting comprising the step of changing a current channel to a demanded major channel in response to a major channel is met by Ozkan, (col. 6, lines 12-18).

The amended claimed feature of automatically displaying on a TV screen, minor channel numbers of programs received through a currently selected major channel and the number of the major number is anticipated by Ozkan, (col. 6, lines 44-50). The cited passage teaches that at least one method of a user selecting a sub-channel, i.e., minor channel is through a hierarchical menu system, displaying program channel selections in a program guide. Thus even though Ozkan does not display any diagrams, the disclosed hierarchical menu system inherently includes displaying the main or major channel, and the list of sub-channels, or minor channels that correspond with the currently selected major channel, in an EPG environment.

Considering claim 3, the claimed step of displaying the minor channel numbers after selecting the current major channel, reads on the inherent operation of hierarchical menu system, col. 6, lines 42-50. In such a system, by convention the sub-categories, i.e., sub-channels or minor channels, are only listed after the corresponding main menu item, i.e. major channel has been selected.

Considering claim 5, the claimed step of changing a current channel to a demanded minor channel in response to a demand to change a minor channel reads on Ozkan, (col. 6, lines 29-42).

Considering claim 7, the claimed method for displaying channel information on a digital TV, comprising steps that correspond with subject matter mentioned above in the rejection of claim 1, are likewise treated.

Regarding claim 10, the instant claim reads on displaying the TV program from the channel of the lowest minor channels, after the instant channel is selected, which is inherent in Ozkan.

Considering claims 17 & 18, the claimed apparatus and device for displaying channel information on a digital TV, comprising elements that correspond with subject matter mentioned above in the rejection of claim 1, are likewise treated.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 8-9, 11, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozkan.

Considering claims 2 & 8-9, wherein the minor channel numbers are displayed in order of number, Ozkan does not discuss the details of the EPG display. Nevertheless, Official Notice is taken that at the time the invention was made, it was very well known in the art to display TV channels according to channel number. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to operate Ozkan in a manner such that the TV channels are listed according to channel number, at least for the known benefit presenting the channels in a format that could easily be logically understood by a subscriber.

Considering claims 11 & 13, Official Notice is taken that selecting a channel by using a channel-up or channel-down function on a remote control was very well known in the art, at the

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time the invention was made. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to operate Ozkan in a manner wherein a channel may be selected using channel-up or channel-down function, at least for the convenience of avoiding the user inputting the digit channel number, in order to change the channel.

6. Claims 4 & 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozkan, in view of Etheredge, (U.S. Pat # 6,172,674).

Considering claims 4 & 6, Ozkan does not teach hiding the major or minor channel numbers after a prescribed time has elapsed. Nevertheless, Etheredge provides a disclosure of removing a particular pop-menu that has been activated by the user, after a certain time, if a channel selection or menu item selection has not been made, (col. 13, lines 26-50; col. 14, lines 4-40; col. 15, lines 10-25). It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Ozkan with the technology taught by Etheredge, at least for the known advantage of reducing the amount of extraneous information displayed to the viewer, since after a certain amount of time it may be assumed that the viewer is no longer interested in making a channel change from the menu displayed on the TV screen.

7. Claims 12 & 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozkan, in view of Keenan, (U.S. Pat # 5,161,023).

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Considering claim 12, the instant claimed feature reads on an endless loop operation such that once the user gets to the top of a list of programs, the next program to be highlighted (selected), would be the program at the bottom of the list, and vice versa. Keenan (col. 1, lines 51-59) discloses such a technology. It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Ozkan, with the known technology of 'wrap around' lists as taught by Keenan (Fig. 3A; col. 3, lines 40-52), at least for the desirable purpose of avoiding the user having to move the cursor in the other direction in order to reach the opposite extreme of the instant list, which would be burdensome on the user, at least in the case of long lists of programs.

Considering claim 14, as discussed above in the analysis of claim 12, it would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Ozkan with the well known 'wrap around' technology disclosed in Keenan (Fig. 3A). However, claim 14 requires the additional step that a user is automatically connected to a succeeding or preceding list of minor channels, depending on whether the user's cursor is currently selecting the highest minor channel or lowest minor channel, respectively of the currently active minor channel list.

To that end, Keenan also teaches that a plurality of independent lists of channels may be linked by pointers, which connect the first channel of an instant channel list with the last channel of the next adjacent channel list, and vice versa (Fig. 4; col. 3, lines 64-67 thru col. 4, lines 1-25;

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col. 5, lines 1-15). This feature is consistent with the hierarchical menu system already discussed from Ozkan.

Conclusion

8. The prior art made of record and not relied upon is considered *pertinent* to applicant's *claims*.

A) Lee Explicit teaching of displaying a list of minor channels, which correspond with a currently selected major channel, (Abstract; col. 1, lines 54-60; col. 2, lines 8-12; col. 3, lines 30-50; col. 4, lines 16-19; Fig. 3).

B) Lownes Teaches selection of minor channels, from a corresponding major channel, (Abstract; col. 1, lines 60-67; Table 1; col. 6, lines 40-64).

C) Morrison Teaches displaying plurality of selectable minor channels, i.e. 105A-105D, (Fig. 4; Fig. 5).

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9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

Or:

(703) 872-9314 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

*Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).*

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Brown M. Reuben whose telephone number is (703) 305-2399.
The examiner can normally be reached on M-F (8:30-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Andrew I. Faile can be reached on (703) 305-4380. The fax phone numbers for the
organization where this application or proceeding is assigned is (703) 872-9314 for regular
communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the receptionist whose telephone number is (703) 305-4700.

Reuben M. Brown


CHRIS GRANT
PRIMARY EXAMINER